

ACC NR: AR7004095

ed on the basis of mean wind velocity profiles are compared with values of v_* found on the basis of direct measurements. The values of heat flows measured by the direct method above the sea are also presented. [Translation of abstract]

[DW]

SUB CODE: 04, 08 /

Card 3/3

KITAYGORODSKIY, S.A.; VOLKOV, Yu.A.

Calculation of turbulent flows of heat and moisture in the
surface boundary layer above the water. Izv. AN SSSR. Fiz.
atm. i okeana 1 no.12:1319-1336 D '65.

(MIRA 19:1)
1. Institut okeanologii AN SSSR i Institut fiziki atmosfery
AN SSSR. Submitted April 15, 1965.

KITAYGORODSKIY, S.A.; VOLKOV, Yu.A.

The roughness parameter of the sea surface and the calculation
of turbulent flows of momentum in the atmospheric ground layer.
Izv. AN SSSR. Fiz. atm. i okeana 1 no. 9:973-988 S '65.

(MIRA 18:9)
1. Institut okeanologii AN SSSR i Institut fiziki atmosfery
AN SSSR.

VOLKOV, Yu.A.

Selecting the value of collector resistances of multistage
transistor amplifiers. Radiotekhnika 20 no.10:38-41 O '65.
(MIRA 18:11)

1. Deystvitel'nyy chlen Nauchno-tehnicheskogo obshchestva
radiotekhniki i elektronsvyazi.

L 414-66 EWT(1)/FCC GW

ACC NR: AP5022922

UR/0362/65/001/009/0973/0988
551.465.75243
BAUTHOR: Kitaygorodskiy, S. A.; Volkov, Yu. A.

44,55 44,55

TITLE: The sea surface roughness parameter and the calculation of the turbulent momentum flux in the atmospheric layer adjacent to water

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 1, no. 9, 1965, 973-988

TOPIC TAGS: atmospheric turbulence, sea water, surface water, lower atmosphere

12,44,55 12,55

ABSTRACT: The profiles of the average velocity in turbulent flows above a uniform stationary wall (in absence of significant temperature stratification) are described by a logarithmic formula. When this logarithmic boundary layer model is applied to the analysis of turbulent exchange processes above sea surfaces the problem arises concerning the determination and physical interpretation of the roughness parameter of a wavy water surface. The present article analyzes the drag of sea surfaces. The processing of a large amount of experimental data shows that 1) the roughness parameter z_0 depends not only on the absolute values of the spectral density of wind-induced waves but also on their frequency composition; 2) z_0 depends in the general case on the dynamical velocity v_* (friction speed), the wave height, phase velocity, and, possibly, on the mean square deviation of the free surface; 3) in spite of earlier attempts by various authors, the $z_0(v_*)$ relationship cannot be written down in a unique way, and a more promising approach seems to be the one considering z_0 a random function of

Card 1/2

L 4144-66

ACC NR: AP5022922

12
v_{*}; and 4) any average dependence of z₀ on v_{*} should be introduced only after establishing the intervals of z₀ values for certain given probabilities; curves established by the authors show that the existing experimental material permits the correlation of any v_{*} value with z₀ (varying by no more than one order of magnitude) with only 50% of probability. "The authors thank A. M. Yaglo and A. S. Monin for their interest and valuable advice." Orig. art. has: 26 formulas and 5 figures.

ASSOCIATION: Institut okeanologii, Akademiya nauk SSSR (Institute of Oceanology, Academy of Sciences, SSSR); Institut fiziki, Akademiya nauk SSSR atmosfery (Institute of Atmospheric Physics, Academy of Sciences, SSSR)

SUBMITTED: 19 Jan 65

ENCL: 00

SUB CODE: ES

NO REF SOV: 014

OTHER: 021

44.55

Card 2/2

VOLKOV, Yu.A.

Use of matching transformers for increasing the Q-factor of
transistor amplifier stages. Izv. vys. ucheb. zav.; radiotekh. 7
no. 3;342-349 My-Je '64. (MIRA 17:9)

VOLKOV, Yu.A., inzh.

Repair of machinery in the Main Leningrad Construction Trust.
Mekh. stroi. 19 no.2:25-26 F '62. (MIRA 16:7)

(Earthmoving machinery—Maintenance and repair)

S/043/63/000/001/001/011
D218/D308

AUTHOR: Volkov, Yu. A.

TITLE: Stability of the solution of the Minkowski problem

PERIODICAL: Leningrad. Universitet. Vestnik. Seriya matematiki, mekhaniki i astronomii, no. 1, 1963, 33-43

TEXT: The Minkowski problem, with which this paper is concerned, consists of the determination of a closed convex surface from a given surface function. In the case of regular surfaces, a surface function is defined by giving the gaussian curvature as a function of the surface normal, while in the case of a polyhedron, it is specified by giving the outer normals and the areas of the faces. If T_0 and T_1 are general convex bodies, and \tilde{T}_0 and \tilde{T}_1 are the homotetic bodies of unit volume, then

Card 1/4

S/043/63/000/001/001/011
D218/D308

Stability of the...

it is shown that the following inequalities will hold:

$$\begin{aligned} \delta(\tilde{T}_0, \tilde{T}_1) &\leq c \left[v_1(\tilde{T}_0, \tilde{T}_1) - 1 \right]^{\frac{1}{n+2}} = \\ &= c \left[\frac{v_1(T_0, T_1)}{\frac{n-1}{V^n(T_0)} V^{\frac{1}{n}}(T_0)} - 1 \right]^{\frac{1}{n+2}} ; \end{aligned} \quad (16)$$

$$\delta(T_0, T_1) \leq \sum_{k=1}^{n-1} c_k \delta^k(\tilde{T}_0, \tilde{T}_1) + R(T_0) \frac{|F(T_1) - F(T_0)|}{F(T_0)} , \quad (17)$$

Card 2/4

S/043/63/000/001/001/011
D218/D308

Stability of the...

where the constant C depends only on n and the ratios $r(T_0)/R(T_0)$, $r(T_1)/R(T_1)$, while the constants C_k depend only on n , $r(T_i)$ and $R(T_i)$ ($i = 0, 1$). The surface function $F(T_1, E)$ or a body T_1, E is close to the surface function $F(T_0, E)$ of a body T_0 , if for any set E on a unit sphere

$$|F(T_1, E) - F(T_0, E)| \leq \epsilon F(T_0), \quad (18)$$

the following theorems are then proved: Theorem 1. If the surface functions of two n -dimensional convex bodies T_0 and T_1, E are close, then

$$\delta(T_0, T_1) \leq c_0 \epsilon^{\frac{1}{n+2}} [1 + c_1(\epsilon)], \quad (19)$$

Card 3/4

Stability of the...

S/043/63/000/001/001/011
D218/D308

where the constant C_0 depends only on n , $r(T_i)$ and $R(T_i)$ ($i = 0, 1$), and the constant $C_1(\varepsilon)$ tends to zero when ε turns to zero. Theorem 2. Subject to the conditions of theorem 1, the inequality given by Eq. (16) will hold, with C_0 depending on n , the surface areas of T_i and the smallest of the areas of projection of T_i on the hyperplanes of all possible directions, while $C_1(\varepsilon)$ depends in addition on ε and tends to zero when ε turns to zero. In the above expressions, $r(T)$ is the radius of the largest sphere contained in T , $R(T)$ is the radius of the smallest sphere containing T , and $\delta(T_0, T_1)$ is the translation-invariant distance between T_0 and T_1 .

SUBMITTED: October 20, 1962

Card 4/4

VOLKOV, Yu. A.

Stability of the solution to Minkowski's problem. Vest. LGU 18
no.1:33-43 '63. (MIRA 16:1)

(Convex surfaces)
(Differential equations)

SELIVANCHIK, Ya.V.; KOLKOTIN, N.M.; FEDULOV, S.V.; MAKAROVA, G.S.;
VOLKOV, Yu.A.; SHITOVA, L.N., red.izd-va; BOROVNEV, N.K.,
tekhn.red.

[Handbook on methods of repairing building machinery]
Instruktsiia po metodam remonta stroitel'nykh mashin. Moskva,
Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam,
1961. 30 p. (MIRA 15:2)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut
organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'-
stvu.

(Building machinery--Maintenance and repair)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860610014-4

VOLKOV, Yu.A.

Existence of a convex polyhedron with a given development. Part 1.
Vest. LGU.15 no.19:75-86 '60. (MIR 13:9)
(Polyhedra)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860610014-4"

ALEKSANDROV, A.D.; VOLKOV, Yu.A.

Uniqueness theorems for surfaces in the large. Part 4 [with
summary in English]. Vest. IgU 13 no.13:27-34 '58. (MIRA 11:8)
(Surfaces)

ACCESSION NR: AP4042850

S/0142/64/007/003/0342/0349

AUTHOR: Volkov, Yu. A.

TITLE: Use of matching transformers in transistorized amplifier stages for enhancing their figures of merit

SOURCE: IVUZ. Radiotekhnika, v. 7, no. 3, 1964, 342-349

TOPIC TAGS: amplifier, transistorized amplifier, figure of merit, transistorized amplifier figure of merit

ABSTRACT: Amplifier stages with and without a matching transformer are compared on the basis of their figures of merit, which are defined as:

$$\text{voltage figure of merit } D_V = K_V / t_V$$

$$\text{current figure of merit } D_I = K_I / t_I$$

where K_V and K_I are voltage gain and current gain, respectively; t_V and t_I are voltage and current pulse-front rise times, respectively. A T-type equivalent

Card 1/2

ACCESSION NR: AP4042850

circuit is theoretically analyzed, and formulas connecting the figures of merit of a no-transformer, input-transformer, and output-transformer transistorized stages are developed. A 2-stage amplifier with an interstage matching transformer is also considered. These conclusions are offered: (1) The use of input and output matching transformers ensures the highest voltage and current figures of merit (impulse matching); (2) Matching conditions can be formulated in terms of signal-source, stage input, stage output, and load resistances; (3) The optimum transformer ratio depends on the input and output stage resistances, and on the ratio between the time constants which characterize the variation of input and output resistances. Orig. art. has: 4 figures and 30 formulas.

ASSOCIATION: none

SUBMITTED: 18Feb63

ENCL: 00

SUB CODE: EC

NO REF SOV: 004

OTHER: 000

Card 2/2

VOIKOV, Yu.A.

Front rise time in multistage transistor amplifiers. Sov. fiz.
ucheb. zav.; raditekhn. 7 no.4:467-471 Jl-Ag-1961.

VOLKOV, Yu.B., inzh.

Strength of the galvanization of the welded units of panel walls.
Prom.stroi. 42 no.2:34-36 '65.

(MIRA 18:4)

CHECHERNIKOV, V.I.; VOLKOV, Yu.D.

Study of nickel zinc ferrates in the transitional region. Vest Mosk. un. Ser. mat., mekh., astron., fiz., khim. 14 no.2:101-105 '59
(MIREA 13:3)

1. Kafedra magnetizma Moskovskogo gosuniversiteta.
(Nickel zinc ferrates)

ACC NR: AP7000350

SOURCE CODE: UR/0413/66/000/022/0115/0116

INVENTOR: Coron, I. Ye.; Baranov, Yu. A.; Dembinskiy, V. F.; Merkin, I. Kh.;
Pankov, G. A.; Penchuk, N. V.; Smolyanitskiy, V. Z.; Volkov, Yu. D.

ORG: none

TITLE: Electromagnetic flaw detector. Class 42, No. 188737

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 22, 1966, 115-116

TOPIC TAGS: flaw detector, magnetic flaw detector, magnetic field ~~configuration~~,
~~configuration~~ flaw detection, electromeasuring device,
electromagnetic device

ABSTRACT: This Author Certificate introduces an electromagnetic flaw detector containing 1) a primary magnetic flux conductor for magnetizing the inspected article, 2) a secondary magnetic flux conductor for duplicating the magnetic field configuration of the article surface, 3) generators with alternating magnetic field ensuring hysteresis-free transfer of the magnetic field configuration, and 4) magnetic recording heads. To inspect shaped articles, the conductor is clamped to the article with elastic rings stretched over the article. To maintain its cylindrical shape, the secondary conductor is enclosed in a vacuum shell. Orig. art. has: 1 figure.

SUB CODE: 1409/SUBM DATE: 11Aug65/

UDC: 620.179.14.08

Card 1/1

24(3)

AUTHORS: Chechernikov, V. I., Volkov, Yu. D. SOV/56-35-4-6/52

TITLE: The Temperature Dependence of Paramagnetic Susceptibility in Nickel-Zinc Ferrites (Temperaturnaya zavisimost' paramagnitnoy vospriimchivosti nikel'-tsinkovykh ferritov)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958,
Vol 35, Nr 4, pp 875-879 (USSR)ABSTRACT: Whereas for ferromagnetic metals and alloys the paramagnetic susceptibility χ obeys the Curie-Weiss (Kyuri-Veyss) law at high temperatures ($T > \theta_{Curie}$), this is not the case with the temperature dependence of χ in ferrites. The first theoretical investigation of these regularities was carried out by Neel (Ref 1); the results he obtained are described in short. They agree well with experimental results. In the case of alloys a considerable degree of dependence of C- and θ -values on composition (C - Curie-Weiss constant, θ - Curie point) was found. Already in a previous paper the authors carried out an experimental investigation of the temperature dependence of χ ; the experimental system is described by reference 4.

Card 1/3

The Temperature Dependence of Paramagnetic Susceptibility in Nickel-Zinc Ferrites

SOV/56-35-4-6/52

The present paper gives the results obtained by numerous measurements. Figure 1 shows the dependence of $1/\chi$ on T within the range of 300-1500°K for 10 different ferrites. Whereas for $\text{Fe}_2\text{O}_3 \cdot \text{ZnO}$ $1/\chi$ increases practically linearly with T, the other curves are more or less curved towards the T-axis, especially that for $\text{Fe}_2\text{O}_3 \cdot \text{NiO}$. Figures 2 and 3 show the dependence of the constants θ , C_H , δ and $1/\chi_0$ on the percentage of the ZnO content in ferrite. Figure 4, on the other hand, shows the dependence of $1/\chi$ on T, viz. experimental curves together with those calculated according to Neel's law. It is shown that, within the range of about 850-1500°K, the theoretical and experimental curves coincide. The authors further investigated the magnetization curves for $\text{Fe}_2\text{O}_3 \cdot 0.5 \text{ NiO} \cdot 0.5 \text{ ZnO}$ (Fig. 6) at 5 different temperatures (range 537-556°K). It was found that with increasing T the specific magnetization δ decreases; the course of the curves $\delta(H)$ (range 0-5000 Oe) more and more develops into a straight line. For $H(\delta)$ near θ_{Curie} the

Card 2/3

The Temperature Dependence of Paramagnetic
Susceptibility in Nickel-Zinc Ferrites

SOV/56-35-4-6/52

formula $H = a\delta + b\delta^3$ is given. The authors thank Professor
Ye. I. Kondorskiy and D. I. Volkov for discussing the results.
There are 6 figures and 5 references, 2 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet
(Moscow State University)

SUBMITTED: May 5, 1958

Card 3/3

ZOLOTAREV, B.B., kand.tekhn.nauk; VOLKOV, Yu.D., inzh.; DOMASKIN, V.I., inzh.

Spot welding of metals by ultrasonic waves. Svar. proizv.
(MIRA 15:12)
no.9:37-41 S '62.
(Ultrasonic welding)

L 4946-66

ACC NR: AP5025741

SOURCE CODE: UR/0286/65/000/018/0090/0090

26
CC

AUTHORS: Volkov, Yu. I.; Keller, F. E.

ORG: none

TITLE: A cyclic binary code coder-corrector. Class 42, No. 174840

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 90

TOPIC TAGS: binary code, binary code combination, coding, cyclic coding, circuit

ABSTRACT: This Author Certificate presents a cyclic binary code coder-corrector in a shifting register with feedback for correcting erasing errors, for detecting conversion errors, and for coding the obtained results. To combine the functions of coding and correcting in a single device, to simplify the circuit, and to reduce the amount of equipment, discharges of the shifting register are connected together through logic gates (see Fig. 1). The unit input of the device is connected with the inputs of the gates, which are connected before the register discharges. These register orders correspond to unique positions of the initial code ring. The zero input of the device is connected to the inputs of all remaining gates. The source of the read-out signal input is connected to all

Card 1/2

UDC: 681.142.07

0901 1593

L 4946-66

ACC NR: AP5025741

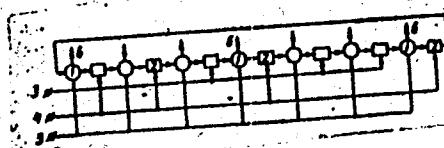


Fig. 1. 1- element with two stable states; 2- gate; 3- input of the pulse sequence input units; 4- zero symbol input; 5- read-out pulse input; 6- output

discharges of the shifting register. Orig. art. has: 1 figure.

SUB CODE: DP, EC / SUBM DATE: 24Apr64

QC
Card 2/2

VOLKOV, Yu.I., inzh.; GAFANOVICH, A.A., kand.tekhn.nauk; GLADKOV, N.G.,
kand.sel'skokhoz.nauk; GORKUSHA, A.Ye., agr.; ZHITNEV, N.P., inzh.;
ZANIN, A.V., kand.tekhn.nauk; ZAUSHITSYN, V.Ye., kand.tekhn.nauk;
ZVOLINSKIY, N.P.; ZEL'TSERMAN, I.M., kand.tekhn.nauk; KAIPOV, A.N.,
kand.tekhn.nauk; KASPAROVA, S.A., kand.sel'skokhoz.nauk; KOLOTUSHKINA,
A.P., kand.ekon.nauk; KRUGLYAKOV, A.M., inzh.; KURNIKOV, I.I., inzh.;
LAVRENT'YEV, L.N., inzh.; LEBEDEV, B.M., kand.tekhn.nauk; LEVITIN,
Yu.I., inzh.; MAKHLIN, Ye.A., inzh.; NIKOLAYEV, G.S., inzh.;
POLESHCHENKO, P.V., kand.tekhn.nauk; POLUNOCHEV, I.M., agr.; P'YANKOV,
I.P., kand.sel'skokhoz.nauk; RABINOVICH, I.P., kand.tekhn.nauk;
SOKOLOV, A.F., kand.sel'skokhoz.nauk; STISHKOVSKIY, A.A., inzh.;
TURBIN, B.G., kand.tekhn.nauk; CHABAN, I.V., inzh.; CHAPKEVICH, A.A.,
kand.tekhn.nauk; CHERNOV, G.G., kand.tekhn.nauk; SHMULEV, B.M., kand.
tekhn.nauk; KRASNICHENKO, A.V., inzh., red.; KLETSKIN, M.I., inzh.,
red.; MOLYUKOV, G.A., inzh., red.; ELAGOSKLONOVA, N.Yu., inzh., red.;
UVAROVA, A.P., tekhn.red.

[Reference book for the designer of agricultural machinery in two
volumes] Spravochnik konstruktora sel'skokhoziaistvennykh mashin
v dvukh tomakh. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.
lit-ry. Vol.1. 1960. 655 p. (MIRA 13:11)
(Agricultural machinery--Design and construction)

ZEL'TSERMAN, I.M.; VOLKOV, Yu.I.

Strain measuring station. Trakt. i sel'khozmash. no.12:32-34
(MIRA 13:3)
D '59.

1.Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystvennogo
mashinostroyeniya.
(Strain gauges)

L 3932-66 EWT(d)/EWP(1) IJP(c) BB/G3
ACC NR: AP5021439

UR/0146/65/008/004/0058/0062
681.142.622

44
40
B

AUTHOR: Volkov, Yu. I.; Keller, F. E. 44

TITLE: Decoder-corrector for a cyclic code 16, 44

SOURCE: IVUZ. Priborostroyeniye, v. 8, no. 4, 1965, 58-62

TOPIC TAGS: error correcting code, error correction coding, error location coding, computer research, information processing

ABSTRACT: A device is proposed which incorporates the functions of a decoder and corrector for a cyclic code. The device permits correction of erasure errors in an erasure channel and also allows the detection of errors in coded information. The basic property of the cyclic code derives from the fact that if K is one of the code combinations, then $K \cdot C^i$ is also a code combination where C is an operator for the cyclic permutation of the terms of the code combinations. The code check is further described as follows. Let h be the least positive integer for which $K \cdot C^h = K$. In this case, the combination K has a period of length h. The cyclic sequence with this period obviously contains both the code combination K and all other combinations obtained from K by application of the operator C. Therefore, each cyclic code may be represented as a system of cyclic sequences with period $h < n$, from which it is possible to obtain all combinations of the cyclic code. Selection of a code combination can be accomplished on a shift register with controlled data flow. Two examples are worked out showing the confirmation of an intact combination and the detection of a dropped bit in the same coded word.

Card 1/2

L 3932-66

ACC NR: AP5021439

The number of core positions required for this type of checking is equal to the number of code combinations of the cyclic code. The principal advantages of the system are its simplicity. Orig. art. has: 1 figure and 3 tables. [04] 4

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. M. I. Kalinina (Leningrad Polytechnic Institute); Leningradskiy electrotekhnicheskiy institut im. V. I. Ul'yanova (Lenina) (Leningrad Electrical Engineering Institute)

SUBMITTED: 01Oct64

ENCL: 00

SUB CODE: DP

NO REF SOV 000

OTHER: 001

Card 2/2

PP

VOLKOV, Yu.I. .Kiyev)

Constructive characteristics of functions of a complex variable
in regions with a piecewise smooth boundary. Ukr. mat. zhur.
(MIRA 18:6)
17 no.3:115-119 '65.

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860610014-4

ABASHKIN, V.A., kand. tekhn. nauk; VOLKOV, Yu.I., inzh.

Some problems of model studies of agricultural tractor-driven machinery. Trudy VISKHOMA no.37:3-19 '63. (MIRA 17:9)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860610014-4"

L 13628-65 EWF(d), Pj-1/Pac-1/Pac-2/Pb-1 AFETR/ASD(d)/ASD(a)-5/ESD(c)/
ESD(gs)/ESD(dp) S/0146/64/007/005/0067/0071
ACCESSION NR: AP4048291

AUTHOR: Volkov, Yu. I.; Keller, F. E.

TITLE: New method of constructing serial decoders 4

SOURCE: IVUZ. Priborostroyeniye, v. 7, no. 5, 1964, 67-71

TOPIC TAGS: decoder, serial decoder, remote control, telemetering

ABSTRACT: Pyramid-type decoders have a large number of intermediate elements; in the case of a binary code, the intermediate elements constitute 50% of all elements. To cut down on their number, a new method of synthesizing serial decoders is offered, in which the output elements also perform the functions of intermediate elements; hence, the number of elements is equal to the number of output circuits. A graph is analyzed, in which every vertex is terminal only for one code whose number is equal to the vertex number. A simplified connection diagram of a square-loop-ferrite decoder for all 3-term

Card 1/2

L 13626-65
ACCESSION NF: AP4048291

binary codes is given. The new system does not necessarily require a pulse distributor. Orig. art. has: 3 figures and 7 formulas.

ASSOCIATION: Leningradskiy elektrotekhnicheskiy institut im. V. I. Lenina
(Leningrad Electrotechnical Institute)

SUBMITTED: 30Jan64

ENCL: 00

SUB CODE: EC

NO REF Sov: 001

OTHER: 001

Card 2/2

L 51982-65 EM(a)/EMT(m)/EPP(c)/EMP(c)/EMP(*)/EPB/EMP(j)/T/EMP(k)/EMP(l)

Pc-4/Pf-4/Pr-4/15-4 WM/RM

ACCESSION NR: A15012212

UR/3078/64/028/000/0238/0241

38

37

AUTHOR: Volkov, Yu. K.; Molokanov, A. V.

Bt/

TITLE: Device for testing plastics for creep and long-term strength

SOURCE: Moscow. Institut khimicheskogo mashinostroyeniya. Trudy, v. 28, 1964.
Korroziya khimicheskoy apparatury (Corrosion of Chemical apparatus), 238-241

TOPIC TAGS: plastic mechanical property, plastic creep, creep tester, strength tester

ABSTRACT: At the Kafedra "Korroziya khimicheskoy apparatury i korrozionnostoykikh materialov" Moskovskogo instituta khimicheskogo mashinostroyeniya (Department of Corrosion of Chemical Apparatus and Corrosion-Resistant Materials, Moscow Institute of Chemical Machine Building), a device was constructed for determining the creep and long-term strength of plastics subjected to the simultaneous action of an aggressive medium, mechanical loads, and temperature. A diagram of the device is given and its operation is described. The deformations are recorded with an EPP-09 electronic potentiometer; the instrument reacts to deformations of 0.002 to 0.004 mm. The electric circuit used for measuring and recording the deformations is also shown. A total of 28 specimens can be tested simultaneously for creep and

Card 1/2

L 51982-65

ACCESSION NR: AT5012212

long-term strength on this device. Orig. art. has: 2 figures.

ASSOCIATION: Moskovskiy institut khimicheskogo mashinostroyeniya (Moscow
Institute of Chemical Machine Building)

SUBMITTED: 00

ENCL: 00

SUB CODE: MT

NO REF SOV: 000

OTHER: 000

mlc
Card - 2/2

VOLKOV, Yu. M.

VOLKOV, Yu. M. -- "A Study of the Synthesis of Sulfonaphthenic Acids as Raw Material for the Production of Detergents to Replace Fat Soaps and for Other Purposes." Min Higher Education Ukrainian SSE. Khar'kov Polytechnic Inst imeni V. I. Lenin. Khar'kov, 1955. (Dissertation for the Degree of Candidate in Technical Sciences)

SOURCE Knizhnaya Letopis', No 6 1956

SOV/65-58-12-11/16

AUTHORS:

Tyutyunnikov, B. N. and Volkov, Yu. M.

TITLE:

The Preparation of Sulphonaphthenic Acids and Their Use in the Manufacture of Detergents (Prigotovleniye sul'fonaftenovykh kislot i ikh primeniye v proizvodstve moyushchikh sredstv)

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr 12,
pp 49 - 52 (USSR)

ABSTRACT: Sodium salts of alkylaryl sulphonic acid, and to a lesser degree, salts of sulphonic acids of the fatty series, are used at present in the manufacture of detergents. Sulphonic acids of the naphthenic series are important because Soviet petroleum often contains a large quantity of naphthenic hydrocarbons of low-molecular weight. The properties of sodium salts of these sulphonaphthenic acids were investigated. These acids can be prepared by sulphochlorination (Refs. 3 and 4). In this connection the sulphochlorination of vaseline and petroleum solar oil (gas oil) from Bakinsk petroleum was investigated. Sodium salts of sulphonic acids can be prepared on a large scale by the following main operations: (1) the refining of the initial crude material; (2) the processing of

Card 1/4

SOV/65-58-12-11/16

The Preparation of Sulphonaphthenic Acids and Their Use in the
Manufacture of Detergents

Card 2/4

the return oil; (3) the sulphonochlorination of the mixtures of the refined crude petroleum and the processed return oil; (4) the conversion of the sulphonochlorides into sulphonnic acids and the preparation of sodium salts of these acids; (5) the purification of the latter from hydrocarbons and (6) the separation of the excess water from the sodium salts of the sulphonnic acids. No tar deposit was formed during the sulphonochlorination of vaseline oil from which the tars had previously been separated. The same applied to solar oil which had first been treated with 5%, then with 10% concentrated sulphuric acid and finally with 3% bleaching earth. An 85% yield of hydrocarbons was obtained. The layout of the experimental plant, used for the sulphonochlorination of vaseline oil, is shown in a figure on page 50. The reaction temperature was 25°C, and the ratio between the S-containing gas and chlorine 1.1:1. The experiment was carried out for three hours. A yield of 27 - 30% weight was obtained. These process conditions

SOV/65-58-12-11/18

The Preparation of Sulphonaphthenic Acids and Their Use in the Manufacture of Detergents

were most suitable because the end product contained a minimum quantity of disulphochlorides and of chlorination products. Most satisfactory results were obtained when processing the return oil with hydrogen in the presence of an alloy catalyst (Ref.5) at 180°C at a pressure of 10 - 12 atms. A light yellow oil was obtained which only contained a very small quantity of chlorine and had a very low iodine number. A mixture (sulphochlorinated, as defined above) containing three parts of return oil and one part of vaseline oil had the same characteristics as sulphochlorinated compositions containing only vaseline oil. Sulphochlorinated refined solar oil gave approximately equal results. The sulphochlorides were converted into the corresponding sulphonates and the surface-tension, foaming properties and deterutive action of these salts determined. A series of other detergents were also prepared and the properties of these & of sulphonates compared. It was found that the s. e. compounds were excellent.

Card 3/4

SOV/65-58-12-11/18

The Preparation of Sulphonaphthenic Acids and Their Use in the Manufacture of Detergents

detergents. There is 1 Table and there are 7 Soviet References.

ASSOCIATION: Khar'kovskiy politekhnicheskiy institut im. Lenina,
(The Khar'kov Polytechnical Institute im. Lenin) and
Ukrainskiy nauchno-issledovatel'skiy uglekhimicheskiy
institut (Ukrainian Research Institute for Coal Chemistry)

Card 4/4

5.3400, 5.3610

78242
SOV/80-33-3-43/47

AUTHOR: Volkov, Yu. M.

TITLE: Brief Communications. Splitting of Fats With Various Sulfonic Acids

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol 33, Nr 3,
pp 742-743 (USSR)

ABSTRACT: Sulfonic acids obtained on sulfochlorination of vaseline oil are highly effective catalysts for the splitting of fats. Colorimetric study showed that the stability of the sulfonic acids under conditions of catalysis can be graded as follows: aliphatic > naphthenic > aromatic series sulfonic acids. The nature of all the coloring substances being identical, it can be assumed that it is the sulfoxyl groups of the sulfonic acids that change during the splitting. The color coefficient was established with the universal photometer model FM using a green filter ($\lambda_{eff.} = 541 \text{ m}$).

Card 1/2

Brief Communications. Splitting of Fats With Various Sulfonic Acids

78242
SOV/80-33-3-43/47

There are 5 references, 1 U.S., 4 Soviet. The U.S. reference is: T. U. Marron, J. Schifferli, Ind. Eng. Chem. Anal., 18, 49 (1946).

SUBMITTED: December 7, 1958

Card 2/2

VOLKOV, Yu. M.

BAZHANOV, Ye.B., CHIZHOV, V.P., KOMAR, A.P., KUL'CHITSKIY, LA.A.,
VOLKOV, Yu.M., and YAVOR, I.P.

"Photodisintegration of Nuclei by Gamma-Radiation from Leningrad
Synchrotron at 60-90 Mev."

Physics Inst. im Lebedev, Acad. Sci. USSR

paper submitted at the A-U Conf. on Nuclear Reactions in Medium and Low Energy
Physics, Moscow, 19-27 Nov 57.

VOLKOV, YU. M.

PA - 2648

AUTHOR:

BAZHANOV, E.B., VOLKOV, YU.M., KOMAR, A.P.,
KUL'CHICKIY, L.A., CHIZHOV, V.P.

TITLE:

Angular and Energy Distribution of Fast Photoprottons from Ni and Al.
(Energeticheskoye i uglovoye raspredeleniye bystrikh fotopro-
tonov iz Ni i Al, Russian).

PERIODICAL:

Deklady Akademii Nauk SSSR, 1957, Vol 113, Nr 1, pp 65 - 67
(U.S.S.R.)

Received: 5 / 1957

Reviewed: 6 / 1957

ABSTRACT:

The authors investigated by the method of the scintillation telescope the angular and energy distribution of fast photoprottons from Ni and the energy distribution of photoprottons from Al. The Ni and the Al were irradiated with a spectrum of γ -quanta with $E_{\max} = 85 \pm 5$ Mev. The telescope consisted of a 0,026 cm thick CsJ(Tl) front crystal and NaJ(Tl) rear crystal of 1,65 cm thickness, which were connected with photomultipliers. The impulses of the front and of the rear counter were investigated by means of a five-channel integral- and a five-channel differential discriminator respectively. Two curves illustrate the energy distributions of the protons emitted from Ni and Al at an angle of 90° to the bundle (in the laboratory system). The energy distribution of the protons emitted from either element have the same form $f(E_p) \sim E_p^{-n}$. With protons of more than 33 Mev n is more than twice the amount of the

Card 1/2

PA - 2648

Angular and Energy Distribution of Fast Photoparticles from Ni and Al.
value of n corresponding to lower energies. The position of the
breaks in the energy spectrum corresponds to the breaks computed
according to the theory of the Photofission of the static deuteron.
A further diagram illustrates the angular distribution of the fast
protons emerging from Ni in the laboratory system for the two
energy intervals of 20 - 33 and 33 - 65 MeV of proton energy.
Here the degree of asymmetry in the angular distribution increases
with growing proton energy. The character of the energy- and angular
distributions obtained here indicates the applicability of the "quasi
deuteron model" in this energy domain of γ -quanta.
(3 illustrations).

ASSOCIATION: Leningrad Physical-Technical Institute of the Academy of Science
of the U.S.S.R.

PRESENTED BY:

SUBMITTED:

AVAILABLE: Library of Congress.

Card 2/2

21 (0)

AUTHORS:

Bazhanov, Ye. B., Volkov, Yu. M.,
Kul'chitskiy, L. A.

sov/56-35-2-3/60

TITLE:

Investigation of Protons With Energies of
15 ~ 65 MeV in the Photodisintegration of Al and Ni
(Issledovaniye protonov s energiyami 15 ~ 65 MeV pri
fotorasshcheplenii Al i Ni)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958,
Vol 35, Nr 2, pp 322-327 (USSR)

ABSTRACT:

The present paper is a continuation and further development of the papers (Refs 1, 2) which were published jointly by the authors and by Komar, Chizhov, and Yavor. A report is given concerning the investigation of the angular distribution of photoprotons (Al and Ni) at a maximum bremsstrahlung energy of $E_{\gamma}^{\max} = 85$ MeV, as well as of the energy distribution of Al-photoprotons at $E_{\gamma}^{\max} = 90$ MeV and various angles. Experimental arrangement: Shielding wall made from Pb, monitor, magnet, Pb-collimator, telescope, target, camera. The protons originated from the

Card 1/3

Investigation of Protons With Energies of
15 ~ 65 MeV in the Photodisintegration of Al and Ni

SOV/56-35-2-3/60

100 MeV-synchrotron of the FTI. Recording of photodisintegration products was carried out by two scintillation telescopes (counters) arranged opposite to each other, the target for the investigation of the angular distribution of protons was a foil with 110μ (for Al) and 50μ (for Ni), the diameter was 1.6 cm. The results of the investigations are shown by diagrams. Angular distribution of Al photoprottons: figure 3; angular distribution of Ni photoprottons: figure 4; (3 and 2 curves respectively for different proton energies). Energy spectrum of Al photoprottons: figure 5 calculated for $\theta = 30, 90$, and 130° , and figure 6 for $\theta = 90^\circ$. The results are studied and discussed from the viewpoint of the quasi-deuteron mechanism of interaction between γ - quanta and nuclei. There are 6 figures, 1 table, and 10 references, 6 of which are Soviet.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskiy institut (Leningrad
Physico-Technical Institute)

Card 2/3

VOLKOV, Yu.M.; KOMAR, A.P.; KOROLEV, G.A.; KOCHAROV, G.Ye.

Application of an ionization β -spectrometer with a time analyzer for half-life determinations. Izv. AN SSSR. Ser. fiz.
25 no.9:1188-1196 '61. (MIRA 14:8)

1. Fiziko-tehnicheskiy institut im. A.F. Ioffe AN SSSR.
(Spectrometry)
(Radioactive substances—Decay)

S/120/62/000/003/015/048
E032/E114

AUTHORS: Kulikov, A.V., and Volkov, Yu.M.
TITLE: Stabilization of the amplification coefficient of
a scintillation counter
PERIODICAL: Pribory i tekhnika eksperimenta, no.3, 1962, 73-74
TEXT: A description is given of an electronic device for
stabilizing the amplification coefficient by sampling the position
of the maximum in the amplitude distribution of pulses from an
auxiliary radioactive source. The main element is a single-channel
kicksorter. The lower discriminator is periodically displaced by
a given amount at constant channel width. The count rate to the
left and to the right of the maximum is recorded and then trans-
formed so that the output voltage is proportional to the difference ✓
between the two counting rates. A peak of 50-100 pulses/sec is
sufficient and the stabilization coefficient is not less than 200.
The corresponding resolution of the scintillation counter is better
than 20% at mean output pulse amplitudes between 10 and 70 V.
A similar device has been described by H. de Waard (Nucleonics, 13,
1955, 7).
Card 1/3 /

33994
S/056/62/042/001/008/048
B125/B108

24.6600

AUTHORS: Volkov, Yu. M., Kulikov, A. V., Chizhov, V. P.

TITLE: Excitation functions for (γ ,d) and (γ ,p) reactions on B^{10}
and Be^9 nuclei

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,
no. 1, 1962, 61 - 64

TEXT: Photodeuterons with more than 15 Mev emitted through 90° during photodisintegration of B^{10} and Be^9 nuclei are studied with a method described before (V. P. Chizhov, ZhETF, 38, 809, 1960). The cross section of the B^{10} (γ ,d) reaction, like that of Li^6 (γ ,d), has a considerable magnitude only for quantum energies $>d_1$. d_1 is the sum of threshold energy ΔE and of the binding energy of the loosest nucleon in the residual nucleus. The cross sections of these reactions increase on further increase of the γ -quantum energies to 90 Mev. The excitation function of $B^{10}(\gamma,d)$ with emission of deuterons of more than 22 Mev has a similar form. The cross section of the $B^{10}(\gamma,d)$ reaction, which is very

Card 1/53

33994

S/056/62/042/001/003/048

B125/B108

Excitation functions for...

small between d and d_1 , may also be explained by forbidden transitions of the type $E1$ with $\Delta T = 0$. The character of the $\text{Li}^6(\gamma, d)$ reaction is not due to any individual characteristics of the Li^6 nuclear structure. The (γ, d) cross section is considerable only when the gamma energies are higher than the reaction threshold by approximately the binding energy of the nucleon in the residual nucleus. The excitation probabilities of

the $\text{B}^{10}(\gamma, p)$ and $\text{Be}^9(\gamma, p)$ reactions uniformly increase with the gamma energy from the threshold and reach a maximum at energies of 20 - 25 Mev above the threshold. The transitions with formation of highly excited states of the Be^9 nucleus, or the quasideuteron mechanism of γ -quantum absorption largely contribute to the excitation of the $\text{B}^{10}(\gamma, p)$ reaction. Professor A. P. Komar and G. M. Shklyarevskiy are thanked for discussions and the synchrotron team for assisting in the experiments. There are 3 figures and 4 references: 2 Soviet and 2 non-Soviet. The two references to English-language publications read as follows: M. Geil-Mann, V. Telegdi. Phys. Rev., 91, 169, 1953; F. Ajzenberg-Selove, T. Lauritsen. Nucl. Phys., 11, 1, 1959.

Card 2/3

Excitation functions for...

33994
S/056/62/042/001/008/048
B125/B108

ASSOCIATION: Leningradskiy fiziko-tehnicheskiy institut Akademii nauk
SSSR (Leningrad Physicotechnical Institute of the Academy
of Sciences USSR)

SUBMITTED: July 21, 1961

Fig. 2. Reaction cross sections.

Legend: (a) Cross sections of $B^{10}(\gamma, d)$ and $B^{10}(\gamma, p)$ relevant to one
effective quantum; (b) excitation functions of these reactions for
particles with energies > 15 Mev; (1) $\text{cm}^2/\text{Q. sterad}$.

Fig. 3. As Fig. 2, but for $Be^9(\gamma, d)$ and (γ, p) . ✓

Card 3/43

34002
S/056/62/042/001/017/048
B104/B102

Photonuclear reactions involving...

with the targets. When the pulses from the two crystals coincided ($\sim 0.2 \mu\text{sec}$), $E=E(\Delta E)$ appeared on the screen of an oscilloscope. From the resulting curves, the curves for tritons, deuterons, and protons were separated by calculation (Fig. 1). Photodeuterons are predominantly produced in complex reactions, in which one or several particles are emitted in addition to the deuterons. Both the excitation function of the

$\text{Li}^7(\gamma, t)$ reaction and the angular distribution of tritons fit the concept of direct dipole absorption of γ -quanta by the Li^7 nucleus which is regarded as a "triton + α -particle" system. V. P. Chizhov is thanked for discussions, and the collective of the FTI synchrotron team, headed by N. N. Chernov, for assistance in the experiments. There are 5 figures, 1 table, and 6 references: 6 Soviet and 2 non-Soviet. The two references to English-language publications read as follows: M. E. Toms. Bibliography of Photonuclear Reactions, U.S. Naval Research Laboratory, Washington, 1960; B. Forkman, Nucl. Phys., 23, 269, 1961.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskiy institut Akademii nauk SSSR (Leningrad Physicotechnical Institute of the Academy of Sciences USSR)

Card 2/K3

Photonuclear reactions involving...

34002

S/056/62/042/001/017/048

B104/B102

SUBMITTED: August 24, 1961

Fig. 1. Distribution of the points determined experimentally during the photodisintegration of Li^7 ($E_{\gamma}^{\max} = 63$ Mev).

Legend: N is the number of particles per zone.

Fig. 5. Angular distribution of protons, deuterons, and tritons with energies between 7.5 and 15 Mev, emitted during the photodisintegration of Li^7 by bremsstrahlung ($E_{\gamma}^{\max} = 63$ Mev). ✓

Legend: (1) protons; (2) deuterons; (3) tritons.

Card 3/A₃

KULIKOV, A.V.; VOLKOV, Yu.M.

Stabilization of the amplification factor of a scintillation counter.
Prib. i tekhn. eksp. 7 no.3:73-74 My-Je '62. (MIRA 16:7)

1. Fiziko-tekhnicheskiy institut AN SSSR.
(Scintillation counters)

KOMAR, A.P.; KULIKOV, A.V.; CHIZHOV, V.P.; YAVOR, I.P.; VOLKOV, Yu.M.

Emission of fast deuterons in the photodisintegration of O^{16} .
Zhur. eksp. i teor. fiz. 43 no.5:1657-1659 N '62. (MIRA 15:12)

1. Fiziko-tehnicheskiy institut imeni A.F. Ioffe AN SSSR.
(Photonuclear reactions)
(Deuterons) (Oxygen)

KUL'CHITSKIY, L.A.; VOLKOV, Yu.M.; DENISOV, V.P.; OGURTSOV, V.I.

Levels in the Li⁷ nucleus appearing in its photodisintegration.
Izv. AN SSSR. Ser. fiz. 27 no.11:1412-1418 N '63.
(MIRA 16:11)

VOLKOV, Yu. M.

S/056/63/044/004/007/044
B102/B186

AUTHORS: Kul'chitskiy, L. A., Volkov, Yu. M.

TITLE: Photodisintegration of Li⁷

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,
no. 4, 1963, 1153 - 1159

TEXT: The energy spectra and angular distributions of the protons and tritons emitted on photodisintegration of Li⁷ were measured by a method similar to that described in ZhETF, 42, 108, 1962. A Li⁷ target of 8 mg/cm² was arranged in a vacuum chamber with two equal telescope counters; argon-filled proportional counters served as input counters for the telescopes. The energy resolution of the telescopes was improved by using fast integral discriminators. The proton energy spectrum $E_{\gamma}^{\max} = 30$ Mev was obtained by superposing the spectra obtained for the angles 54, 72, 90, 108, and 126°; peaks were observed at 4.60, 5.20, 5.85, 6.75, 7.75, 8.60, and 10.20 Mev. When superposing the spectra taken at $E_{\gamma}^{\max} = 20, 25,$ and 30 Mev (90°), the low-energy peaks appear somewhat shifted. The triton energy

Card 1/3

Photodisintegration of Li⁷

S/056/63/044/004/007/044
B102/B186

spectrum ($E_{\gamma}^{\text{max}} = 30$ Mev) has peaks at 14.1, 16.2, 18.0, 19.6, 21.5, 23.5, and 25.3 Mev. The angular distributions of both photoprotons and phototritons can be approximated by $a + b \sin^2\theta(1 + \gamma \cos\theta)^2$; a/b and γ are determined by the method of the least squares. The differential p, d, and t production cross sections are given in Table 3 (cm²/steradian·Mev·Q). As calculations based on the theory of gamma resonance absorption show, the reaction Li⁷(γ, t)He⁴ occurs most probably as a result of compound nucleus formation. The peaks corresponding to the 19.6 and 25.3 Mev excited levels were observed for the first time. The majority of the protons observed correspond to transitions to excited states of the He⁶ nucleus. There are 5 figures and 5 tables.

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe Akademii nauk SSSR (Physicotechnical Institute imeni A. F. Ioffe of the Academy of Sciences USSR)

SUBMITTED: November 10, 1962

Card 2/3

S/056/63/044/004/007/044
B102/B186

Photodisintegration of Li⁷

Table 3

$10^6 \frac{d\sigma}{dQ dE_Q} \cdot \frac{\text{cm}^2}{\text{cm}^2 \text{perid-MeV}\cdot Q}$			
$E_\gamma \text{ max } =$ $= 20 \text{ MeV}$	$E_\gamma \text{ max } =$ $= 25 \text{ MeV}$	$E_\gamma \text{ max } =$ $= 30 \text{ MeV}$	
$\frac{p}{d}$	2.7 ± 0.2 0.11 ± 0.03 1.36 ± 0.24	8.6 ± 0.4 0.40 ± 0.12 1.36 ± 0.12	12.7 ± 1.2 0.60 ± 0.3 1.56 ± 0.2

Card 3/3

L 30032-66 EWT(m)

ACC NR: AP6020113

SOURCE CODE: UR/0367/66/003/002/0277/0282

AUTHOR: Volkov, Yu. M.; Komar, A. P.; Chizhov, V. P.

ORG: Physicotechnical Institute im. A. F. Ioffe, AN SSSR (Fiziko-tehnicheskiy institut AN SSSR)

TITLE: Excitation functions for Be⁹ (gamma, p), Be⁹ (gamma, d), Be⁹ (gamma, t), O¹⁶ (gamma, d) and Cu (gamma, d) reactions in which particles of fixed energies are emitted

SOURCE: Yadernaya fizika, v. 3, no. 2, 1966, 277-282

TOPIC TAGS: excitation energy, differential cross section, deuteron, proton, nuclear reaction, beryllium, copper, gamma quantum

ABSTRACT: Differential cross-sections are given as functions of the gamma-quantum energy for the reactions Be⁹(gamma, d), Be⁹(gamma, d), and Be⁹(gamma, t) with the emission of particles having a mean energy ~ 5 MeV, and for the reaction O¹⁶(gamma, d) with the emission of deuterons and protons with energies from 3.6 to 5.2 MeV in the photodisintegration of Cu are given. Orig. art. has: 3 figures and 2 tables. [Based on authors' Eng. abstr.] [JPRS]

SUB CODE: 20 / SUIM DATE: 23Jul65 / ORIG REF: 003 / OTH REF: 007

Card 1/1

VOLKOV, Yu.M.; KORENEV, N.V.

The lining of cyclone with concrete. Gidroliz.i lesokhim.prom.
9 no.3:15 '56. (MLRA 9:8)

1. Saratovskiy gidroliznyy zavod.
(Hydrolysis) (Separators (Machines))

VOLKOV, Yu.M.

Fire-brick lining of hydrolytic apparatus. Gidroliz.i lesokhim.
prom. 9 no.5:22 '56.
(MLRA 9:11)

1. Saratovskiy gidroliznyy zavod.
(Firebrick) (Hydrolysis)

VOLKOV, Yu.M.

Improve the production of yeasts. Gidroliz. i lesokhim.prom. 16
no.3:25-26 '63. (MIRA 16:5)

1. Saratovskiy gidroliznyy zavod.
(Wood--Chemistry) (Yeast)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860610014-4

3
I-H/N

Stabilization of sulfo-chlorinated petroleum oils. Yu. M.
Volkov. U.S.S.R. 101,270, Nov. 30, 1955. Darkening of sulfo-chlorinated
the product obtained by phthalic sulfo-chlorination
of refined petroleum oils is inhibited by addn. of 0.1-0.2%
of turpentine.

M. Horsch

GMB
JMT

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860610014-4"

AUTHORS: Yeru, I.I., Volkov, Yu.M. and Lange, A.A. SOV/68-58-2-10/20
TITLE: Purification of Raw Benzole Fraction by Catalytic Hydrogenation Under Pressure of Coke-oven Gas (Ochistka fraktsiy syrogo benzola metodom kataliticheskogo gidrirovaniya pod davleniyem koksovogo gaza)
PERIODICAL: Koks i Khimiya, 1959, Nr 2, pp 35 - 38 (USSR)
ABSTRACT: An investigation of the purification of raw benzole fraction by hydrogenation over tungsten-nickel sulphide and molybdenum cobalt oxides on alumina catalysts is described. Preliminary experiments were carried out on a high-pressure dropping apparatus (dropwise feed of raw benzole into the reactor (Figure 1). At 340 °C and 40 atm, the sulphide catalyst was found to be too active as hydrogenation of benzene hydrocarbons was taking place. Oxide catalyst was found to be more suitable as a product containing only 0.005% of thiopene could be obtained at 390 °C and contact time of 12 sec at 40 atm and 16 seconds at 60 atm. The sulphur balance of the process is shown in Table 1. Further experiments were carried out in a continuous small-scale plant (Figure 3). It was found in the initial experiments that the reaction temperature could be reduced to 350 °C.
Card1/2

Purification of Raw Benzole Fraction by Catalytic Hydrogenation Under
Pressure of Coke-oven Gas

SOV/68-58-2-10/20

Further tests were carried out at 350 °C, 40 atm, and volume velocity of 0.5 vol/vol/h. The experimental results obtained are given in Table 6. It was found that the hydrogenation process under these conditions was satisfactory but in order to obtain pure benzole a higher efficiency rectification column is necessary. There are 3 figures, 2 tables and 3 references, 2 of which are German and 1 Soviet.

ASSOCIATION: UKhIN . .

Card 2/2

VOLKOV, Yu.M.

Comments on D.D.Ruschev's article. Koks i khim. no.1:63 '60.
(MIRA 13:6)

1. Ukrainskiy uglekhimicheskiy institut.
(Coal) (Oxidation)
(Ruschev, D.D.)

VOLKOV, Yu.M.; SKLYAR, M.G.

Classification of coals. Koks.i khim. no.2:3-4 '60.
(MIRA 13:5)

1. Ukrainskiy uglekhimicheskiy institut.
(Coal--Classification)

S/065/60/000/008/005/007
E030/E412

AUTHOR: Volkov, Yu.M.

TITLE: Intense Oxidation of Coal to Obtain Raw Materials for
Organic Synthesis

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1960,⁵ No. 8,
pp. 37-40

TEXT: A new process for oxidizing coal to organic acids is described which is very efficient and should be economical in the long term. The coal is crushed to 100 to -200 mesh, held in suspension in an aqueous alkaline medium and oxidized with air at 250 to 270°C and 60 to 80 atm (20 atm partial pressure of oxygen). Coal, alkali and water are used in the ratio 1 : 3 - 5 : 10 - 20. Oxidation lasts 2 to 3 hours, when about 50% of the coal is oxidized to carbonic acids and the remainder to CO₂, with a consumption of 1.6 kg oxygen per 1 kg coal. After oxidation, water-soluble acids (mineral acids such as sulphuric and carbonic) are filtered off and the water-insoluble acids are treated with M.E.K., which yields a 50 to 70% syrup for vacuum distillation. Approximately one third of the soluble acids are extracted and the remainder returned for further oxidation. 1 kg Coal yields 450 to 550 gm of total acid.

Card 1/3

S/065/60/000/008/005/007
E030/E412

Intense Oxidation of Coal to Obtain Raw Materials for Organic
Synthesis

containing 10 to 12 gm benzoic, 45 to 50 gm orthophthalic,
15 to 17 gm isophthalic, 8 to 10 gm terephthalic, 70 to 80 gm oxalic
and 15 to 20 gm acetic. Further extraction is possible by molecular
distillation or solvent extraction, the latter being the cheaper
and simpler; the acids are first esterified with methyl, ethyl or
butyl alcohol and these, by not possessing hydrogen bonding of the
associated acids, are much more easily fractionated. Final
separation is by sublimation and up to thirty-five individual
compounds have been obtained. The above separations are complex
and uses are therefore sought for the acids which do not require
separation. Thus, mixtures of the others have been used as high
load and high revolution friction-reducing additives, or the acids
themselves may replace maleic acid as a petroleum emulsion breaker.
It is estimated that in a 5000 ton per annum plant, half the costs
could be recovered from one ton of acid producing phthalic
anhydride. Even in countries such as the USA which are rich in
coal and natural gas, the process could provide an economic outlet
for coal, independent of metallurgical needs, and more efficient

✓

Card 2/3

S/065/60/000/008/005/007
E030/E412

Intense Oxidation of Coal to Obtain Raw Materials for Organic
Synthesis

than coking. There are 1 figure, 1 table and 15 English
references.

ASSOCIATION: UKhIN

Card 3/3

VOLKOV, Yu.M.; SINTSEROVA, L.G.

Structure of the organic substances of coal. Koks i khim. no.7:
18-20 JI '61. (MIRA 14:9)

1. Ukrainskiy uglekhimicheskiy institut.
(Ccal--Analysis)

VOLKOV, Yu.M., kand.tekhn.nauk

Ashes of hard fuel minerals as fertilizers. Zemledelie
23 no.9:79 S '61.

(MIRA 14:12)

1. Ukrainskiy nauchno-issledovatel'skiy uglekhimicheskiy institut.
(Fertilizers and manures)

VOLKOV, Yu.M.; DORMAN, L.I., doktor fiz.-mat. nauk, red.; ALYAB'YEV, A.F., red.; PCHELIINTSEVA, G.M., red.; POPOVA, S.M., tekhn. red.

[Plasma in a magnetic field and direct conversion of thermal energy to electric power] Plazma v magnitnom pole i priamoe preobrazovanie teplovoi energii v elektricheskuiu; sbornik statei. Pod red. L.I. Dormana. Moskva, Gosatomizdat, 1962. 470 p. Translated articles from the English. (MIRA 16:3) (Magnetohydrodynamics) (Thermoelectricity)

L 15724-63

EWT(1)/BDS AFFTC/ESD-3

P1-4/Po-4 TF

ACCESSION NR: AR3002663

S/0124/63/000/005/B014/B015

SOURCE: Rzh. Mekhanika, Abs. 5B69

64

AUTHOR: Volkov, Yu.M.; Dorman, L. I.; Milchaylov, Yu. M.

TITLE: Experiments on generation of a magnetic field in metals and the question
of the origin of the geomagnetic fieldCITED SOURCE: Sb. Vopr. magnitn. gidrodinamiki i dinamiki plazmy. v. 2. Riga,
AN LatvSSR, 1952, 155-169TOPIC TAGS: metal, sphere, rotation, geomagnetic field, earth, copper, lead,
brass layer, magnetohydrodynamics, induced fieldTRANSLATION: Experiments on the generation of a magnetic field during the ro-
tation of a conducting body in an external magnetic field are described. Pre-
viously, theoretical formulas for the induced field were introduced. The rotation
of a metallic sphere with constant angular velocity in an external homogeneous
magnetic field is considered. Expressions are obtained for the induced azimuthal
field in two cases: when the sphere is surrounded by a stationary conducting,

Card 1/2

L 15724-63

ACCESSION NR: AR3002663

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solid medium, and when the sphere is submerged in a viscous conducting liquid, which is also rotating.

The induced field is proportional to the external field, and the angular frequency of the rotation also depends on the ratios of the conductivities of the body and the medium. In the case of a solid medium the induced field falls with distance from the center of the sphere as $1/r^3$, and in the case of the liquid medium, as $1/r$. The obtained dependence is verified by experiment. The experiment was conducted not with a sphere, but with a rotating cylinder. At a large distance from the cylinder, the field in the first approximation ought to be the same for the spherical rotator, as for the cylindrical, limited in respect to height. The rotation of a copper rotator was studied, set in lead, copper, brass, and mercury layers, and also the rotation of a mercury rotator in copper. The rotations of solid metallic rotators in mercury were studied. The experiment verified the entire theoretical dependence. Induced field magnitudes of up to $1/30$ of the external field were obtained.

The obtained results give a basis for judgment of the origin of geomagnetic field. They support the validity of the hypothesis of the magneto-hydrodynamic derivation of the earth's field. Yu.R.

DATE ACQ: 14 Jun 63

SUB CODE: PH, ML

ENCL: 00

Card 2/2

VOIKOVA, O.B.; KAZANSKIY, V.L.; VOLKOV, Yu.M.; Prinimali uchastiye KUTYAKOVA,
G.N.; PETROVA, N.I.

Obtaining surfactants from low-boiling fractions of light paraffin.
Nefteper. i neftekhim. no.7:22-26 '64. {MIRA 17:11}

1. Kuybyshevskiy nauchno-issledovatel'skiy institut neftyanoy promy-
shlennosti i Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy insti-
tut sinteticheskikh zhirozameniteley.

ACCESSION NR: AP4032923

S/0286/64/000/008/0042/0042

AUTHORS: Volkov, Yu. M.; Volkova, O. B.

TITLE: Method of producing surface-active substances of the alkylsulfonate type.
Class C lld, 23e, 2, No. 161860 (811108/23-4, 29 Dec 1962)

SOURCE: Byulleten' izobreteni i tovarnykh znakov, no. 8, 1964, 42

TOPIC TAGS: alkylsulfonate, surface-active substance, sulfochloridation, hydrocarbon

ABSTRACT: A method of producing surface-active substances of the alkylsulfonate type by sulfochloridation of hydrocarbons of high molecular weight, with subsequent saponification. The distinguishing feature is improved-quality end products. The hydrocarbons of high molecular weight are saturated with sulfurous anhydride prior to sulfochloridation.

ASSOCIATION: None

Card 1/8

L 45623-65 EWT(1)/EWT(m)/EPF(c)/EPF(n)-2/EIG(r)/EPR/EPA(w)-2/EWP(t)/EWP(b) - Pz-6/
Po-4/Pab-10/Pr-4/Pi-4/Pu-4 IJP(c) JD/VN/JG/AT
ACCESSION NR: AF5006463 8/0294/65/003/001/0003/0016
86 20 21

AUTHOR: Volkov, Yu. M. (Moscow)

TITLE: Pulsed non-isothermal discharge in mixtures of inert gases with cesium

SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 1, 1965, 3-16

TOPIC TAGS: magnetohydrodynamics, mhd generator, discharge plasma, positive column,
nonisothermal discharge, cesium plasma

ABSTRACT: An experimental study was made of the properties of the positive column of a non-isothermal pulsed discharge, in view of the importance of the plasma of such a discharge for the design of magnetohydrodynamic generators, with special attention to the character of the formation and the properties of the positive column itself. The experimental set-up is illustrated in Fig. 1 of the Enclosure. The plasma characteristics were measured by means of probes and by streak photography. The spectrum of the discharge was also photographed. The investigations have shown that, depending on the pressures of the cesium and of the inert gas in the tube, there are three different discharge-channel development stages: free column, hindered discharge, and discharge at low cesium concentration and at high electron

Card 1/13

L 45623-65

ACCESSION NR: AP5006463

temperatures. These different discharge modes can be explained in terms of two stages of channel development, ionization and thermal, and a theory of the channel development in each stage is presented. The plasma column was always well constricted and exhibited certain characteristic values of current density and conductivity, depending on the cesium and inert gas pressure. If the energy is supplied to the electron gas at a constant rate, ionization equilibrium at the electron temperature is established after a certain time, provided the gas temperature does not change much. A change in the gas temperature results in a change in the electron temperature (if the electric field is constant, as is the case in a mhd generator). The relatively long time of establishment of ionization equilibrium and the relatively large losses during the initial stage of development of the plasma column are serious difficulties in the mhd generator design. Data are presented on the properties of a non-equilibrium argon-cesium and helium-cesium plasma (conductivities, current densities, field intensities, fraction of inelastic losses, and others) at cesium pressures $\sim 10^{-3}$ - 1.0 mm Hg, argon pressures ~ 100 mm Hg, and current densities $\sim 100A/cm^2$. The author thanks Ye. P. Velikhov and A. P. Ne-dospasov for continuous interest in the work, and V. A. Tsvetkov for help with the experiments. In addition, the author thanks A. M. Dykhne, who together with Ye. P.

Card 2/4

L 45623-65

ACCESSION NR: AB5006463

Velikhov analyzed the energy balance equations." Orig. art. has: 10 figures, 12 formulas, and 1 table.

ASSOCIATION: Non!

SUBMITTED: 19Se,64

ENCL: 01

SUB CODE: ME

OTHER: 002

NR REF Sov: 003

Card 3/4

11153-66 EWT(m)/EWA(d)/T/EWP(t)/EWP(b) JD/WB
ACC NR: AP6000?39

SOURCE CODE: UR/0286/65/000/021/0036/0036

AUTHORS: Volkov, Yu. M.; Grebenyuk, E. A.

ORG: none

TITLE: / A method for obtaining a surface-active agent "sulfopone." Class 23, No.
176030 / Announced by All-Union Scientific Research and Design Institute of Synthetic
Fat Substitutes (Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut
sinteticheskikh shirozameniteley) /

SOURCE: Byulleten' izobreteniya i tovarnykh znakov, no. 21, 1965, 36

TOPIC TAGS: surface active agent, albumen / sulfopone

ABSTRACT: This Author Certificate presents a method for obtaining a surface-active agent based on albumen hydrolyzate and chloranhydrides of acids. To broaden the source of raw materials, alkylsulfochlorides are used as chloranhydrides, and the process is conducted at the temperature of 70C and pH of 7.5—8.5.

SUB CODE: 11/ SUBM DATE: 26Oct64

UDC: 661.185.22

60
Card 1/1

VOLKOV, Yul.M.

Remarks on the article of V.D.Ianopol'skii and A.S.Konyshova.
Azerb.neft.khoz. 37 no.10:35-36 O '58. (MIRA 12:2)
(Halogenation)

VOLKOV, Yu.N.

Increasing the stability of draw plates and safety in the operation
of wire drawing machines. Stal' 15 no.11:1028-1031 N '55. (MIRA 9:1)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut okhrany truda.
(Metal drawing)

VOLKOV, Yu. N.

Catching the ends of broken wire. Stal' 16 no.12:1135-1137 D '56.
(MIRA 10:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut okhrany truda.
(Drawing (Metalwork))

VOLKOV, Yury Nikolaevich

VOLKOV, Yury Nikolaevich, kand.tekhn.nauk; YEVGENYICH, A.V., otvetstvennyy
red.; POPOVA, G.V., red.izd-vn; PROZOROVSKAYA, V.L., tekhn.red.

[Mechanized coal storage and waste rock dumps] Mekhanizirovannye
ugol'nye sklady i porodnye otvaly. Moskva, Ugletekhnidat, 1957.
(MIRA 11:3)
213 p.
(Coal handling machinery)

VOLKOV Yu. N.

NIKITIN, Gennadiy Mikhaylovich; GUSEV, M.N., kand.tekhn.nauk, dots.; retsenzent;
VINOGRADOV, I.M., inzh., retsenzent; VOLKOV, Yu.N., starshiy nauchnyy
sotrudnik, retsenzent; SIMSON, I.I., retsenzent; KRUKOVSKIY, V.A..
red.; VOLCHOK, K.M., tekhn.red.

[Safety engineering and fire prevention in transportation by water]
Tekhnika besopasnosti i protivopozharnaya tekhnika na vodnom
transporte. Leningrad, Izd-vo "Rechnoi transport," Leningr. otd.-
nie, 1958. 416 p. (MIRA 11:5)

(Ships--Fires and fire prevention)
(Safety engineering)

VOLKOV, Yuriy Nikovayevich; ZHILO, M.Ye., red.; AVRUTSKAYA, P.F., red. izd-va;
KARASIN, A.I., tekhn. red.

[Safety engineering in wire drawing] Tekhnika besopasnosti pri
volochenii provoloki. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry
po chernoi i tsvetnoi metallurgii, 1958. 86 p. (MIRA 11:7)
(Wire drawing—Safety measures)

PREOBRAZHENSKIY, B. S., prof.; VOLKOV, Yu. N., kand. med. nauk;
GOLUBCHIKOV, D. I. (Moskva)

Otiatric phantom. Vest. otorin. no.3:93-94 '62.
(MIRA 15:6)

1. Deystvitel'nyy chlen AMN SSSR (for Preobrazhenskiy).

(OTORHINOLARYNGOLOGY)

UNDRITS, V. F., prof.; TEMKIN, Ya. S., prof.; NEYMAN, L. V., prof.;
VOLKOV, Yu. N., red.; KUZ'MINA, N. S., tekhn. red.

[Manual of clinical audiology] Rukovodstvo po klinicheskoi audio-
logii. Moskva, Medgiz, 1962. 323 p. (MIRA 16:1)
(EAR—DISEASES) (AUDICMETRY)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860610014-4

RYABCHENKO, Aleksandra Tikhonovna; VOLKOV, Yu.N., red.

[Functional disorders of the voice] Funktsional'nye narušenija golosa. Moskva, Meditsina, 1964. 101 p.
(MIRA 17:11)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860610014-4"

VOLKOV, Yu.N.; NEKRASOV, Yu.A.

Hemotransfusions in treating patients suffering from peptic
ulcers. Vrach. delo no.11:136-137 N°63 (MIRA 16:12)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860610014-4

VOLKOV, Yu. N.

"A Differential Diagnosis of Hypertension and Neurocirculatory Dystonia of a
Hyper tonic Type".

Voyenno Meditsinskiy Zhurnal, No. 4, 1962

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860610014-4"

POTAPOV, Ivan Ivanovich, prof.; ZBEROVSKAYA, Nina Viktorovna;
KALINA, Valentin Osipovich; VOLKOV, Yu.N., red.; PARAKHINA,
N.L., tekhn. red.

[Tympanoplasty] Timpanoplastika. Moskva, Medgiz, 1963. 166 p.
(MIRA 16:12)
(TYMPANAL ORGAN--SURGERY)

IGNATOK, A.I., red.; SHAYKEVICH, A.S., red.; VOLKOV, Yu.N., red.; EL'TERMAN, Ye.M., red.; PERLOVA, S.A., red.; NIKOLAYEV, N.A., red.; ERENBURG, G.S., red.; BUTKOVSKAYA, Z.M., red.; CHERNILOVSKAYA, F.M., red.; YANKOVSKIY, V.F., red.; MALYGIN, O.P., red.; BOGOMOLOV, I.G., red.; KOZLOV, A.A., red.; SMIRNOV, I.I., inzh., red.; ROGOV, B.A., red.; PETRUKHOVA, G.N., red. izd-va; DEMKINA, N.F., tekhn. red.

[Safety and industrial sanitation regulations for making boilers and metal constructions] Pravila tekhniki bezopasnosti i proizvodstvennoi sanitarii pri proizvodstve kotel'nykh rabot i metallokonstruktsii. Utverzhdenny 29 avgusta 1961 goda. Moskva, Mashgiz, 1962. 28 p. (MIRA 15:12)

1. Profsoyuz rabochikh mashinostroyeniya SSSR.
2. Glavnnyy tekhnicheskiy inspektor TSentral'nogo komiteta profsoyuza rabochikh mashinostroyeniya (for Ignatok).
3. Starshiye nauchnyye sotrudniki Leningradskogo instituta okhrany truda Vsesoyuznogo tsentral'nogo soveta profsoyuzov (for Shaykevich, Volkov, El'terman, Perlova).
4. Nachal'nik otdela Vsesoyuznogo proyektno-tehnologicheskogo instituta tyazhelogo mashinostroyeniya (for Nikolayev).
5. Starshiye nauchnyye sotrudniki Leningradskogo instituta gigiyeny truda i profzabolevaniy (for Erenburg, Butkovskaya, Chernilovskaya).

(Continued on next card)

VOIKOV, Yu.N., kand.med.nauk

Plasmocytoma of the larynx. Vest. otorin., no.6:95-96 '61.

(MIRA 15:1)

1. Iz kliniki bolezney ukha, nosa i gorla (zav. - prof. I.I. Potapov) TSentral'nogo instituta usovershenstvovaniya vrachey, Moskva.

(LARYNX--TUMORS)